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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,459	12/10/2003	Dan Teodosiu	14917.0456USU1	8789

27488 7590 01/25/2007
MERCHANT & GOULD (MICROSOFT)
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER

LY, CHEYNE D

ART UNIT	PAPER NUMBER
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2168

MAIL DATE	DELIVERY MODE
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01/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Interview Summary	Application No.	Applicant(s)	
	10/733,459	TEODOSIU ET AL.	
	Examiner	Art Unit	
	Cheyne D. Ly	2168	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Cheyne D. Ly. (3) Tim Scull for applicant.
 (2) Rene Pereyra for applicant. (4) _____.

Date of Interview: 27 December 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference
 c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.
 If Yes, brief description: _____.

Claim(s) discussed: _____.

Identification of prior art discussed: _____.

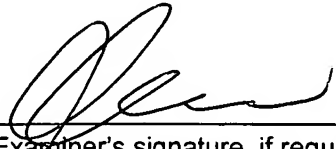
Agreement with respect to the claims f) ☐ was reached: g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed the proposed amendment faxed to Examiner. Examiner has indicated to Applicant that the prior art of record would be withdrawn if the amendment were filed.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.



 Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

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Fax Transmission | December 22, 2006

To:	Examiner Ly	From:	Tim Scull
Company:	USPTO	Our Ref.:	14917.0456USU1
Your Ref:	10/733,459	Fax No.:	303.357.1671
Fax No.:	571.273.0716	Phone No.:	303.357.1648
Phone No.:	571.272.0716	Total Pages:	8
State/Country:		E-Mail:	tscull@merchantgould.com
Confirmation Via Mail:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Return Fax To:	

Document Transmitted: Applicant Initiated Interview Request Form; Draft Amendment and Response

Message:

This transmission contains information that is confidential and/or legally privileged. It is intended for use only by the person to whom it is directed. If you have received this telecopy in error, please notify us by telephone immediately so that we can arrange for the return of the original documents to us.

If you did NOT receive all of the pages, please call us in the U.S.A. at 303.357.1670 or fax us at 303.357.1671.

Applicant Initiated Interview Request Form

Application No.: 10/733,459 First Named Applicant: Teodosiu, Dan
 Examiner: Chayne D. Ly Art Unit: 2168 Status of Application: Pending

Tentative Participants:

(1) Examiner Ly (2) Tim Scull
 (3) Rene' Pereyra (4) _____

Proposed Date of Interview: 12/27/2006 Proposed Time: 2:00 ~~(AM)~~ (PM) (EST)

Type of Interview Requested:

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☐ YES ☒ NO

If yes, provide brief description: _____

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) <u>102</u>	<u>Clms 1-11,</u> <u>13 & 14</u>	<u>Williams</u> (US Pub No. 2003/ <u>0679100</u>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) <u>103</u>	<u>31</u>	<u>Williams & Shakib</u> (US Pub No. 2005/ <u>787262</u>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Continuation Sheet Attached					

Brief Description of Arguments to be Presented:

(1) Williams "Fence Values" are not used to make replication determinations,
rather they are used to control access to a file system.

(2) Discuss proposed claim amendments (attached).

An interview was conducted on the above-identified application on _____.

NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Timothy Scull
 Applicant/Applicant's Representative Signature

 Examiner/SPE Signature

TIMOTHY SCULL
 Typed/Printed Name of Applicant or Representative

 Registration Number, if applicable

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

-- DRAFT - NOT FOR OFFICIAL ENTRY --

S/N 10/733,459

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Teodosiu et al. Examiner: Ly, Cheyne D.
Serial No.: 10/733,459 Group Art Unit: 2168
Filed: 12/10/2003 Docket No.: 14917.0456USU1 (formerly 4031)
TITLE: GRANULAR CONTROL OVER THE AUTHORITY OF REPLICATED
INFORMATION VIA FENCING AND UNFENCING

DRAFT AMENDMENT AND RESPONSE
(For Discussion Purposes Only)

Listing of Claims:

1. (Currently Amended) A computer ~~storage media-readable medium~~ having computer-executable instructions, comprising:

retrieving meta-data of a resource that is replicated on a plurality of machines, the resource having meta-data and content that ~~reside~~resides on each machine on which the resource is replicated, the meta-data including one or more values that are updated whenever the content of the resource is changed via any local update and a fence value that is independent of any local changes to the content;

comparing a first fence value of the content on a first machine of the plurality of machines with a second fence value of the content on a second machine of the plurality of machines; ~~and~~

determining whether the first fence value is of higher precedence than the second fence value; and

~~if the first fence value is of higher precedence than the second fence value,~~
updating the resource residing on the second machine based on the determining.

2. (Currently Amended) The computer ~~storage media-readable medium~~ of claim 1, wherein the meta-data is stored in a store separate from the content.

- DRAFT - NOT FOR OFFICIAL ENTRY -

Application No. 10/733,459

3. (Currently Amended) The computer storage media-readable medium of claim 1, wherein updating the resource residing on the second machine comprises determining one or more differences between the content on the first and second machines and transmitting the one or more differences.

4. (Currently Amended) The computer storage media-readable medium of claim 1, wherein updating the resource residing on the second machine comprises transmitting the meta-data only.

5. (Currently Amended) The computer storage media-readable medium of claim 4, wherein the content on the first and second machines is the same.

6. (Currently Amended) The computer storage media-readable medium of claim 1, wherein the content comprises file data and file attributes.

7. (Currently Amended) The computer storage media-readable medium of claim 1, wherein each meta-data on each machine comprises a digest that summarizes the resource.

8. (Currently Amended) The computer storage media-readable medium of claim 8, further comprising comparing the digests of the meta-data on the machines and bypassing updating if the digests are equivalent.

9. (Currently Amended) The computer storage media-readable medium of claim 1, wherein updating the second machine comprises updating the second fence value to equal the first fence value.

10. (Currently Amended) The computer storage media-readable medium of claim 1, further comprising if the fence values are equivalent, comparing other data in the meta-data to determine whether content should be updated.

- DRAFT - NOT FOR OFFICIAL ENTRY -

Application No. 10/733,459

11. (Currently Amended) The computer storage media-readable medium of claim 1, wherein each fence value is assigned to a portion or portions of its respective resource.

12. (Currently Amended) The computer storage media-readable medium of claim 1, wherein content with a certain fence value is not propagated to other machines.

13. (Currently Amended) The computer storage media-readable medium of claim 1, wherein content with a certain fence value is invisible to other machines.

14. Cancelled

15. (Currently Amended) The computer storage media-readable medium of claim 1, further comprising keeping each fence value the same as the content associated with the fence value changes.

16. (Currently Amended) A computer storage media-readable medium having computer-executable instructions, comprising:

determining whether a first resource residing on a first machine should be used to update a second resource residing on a second machine, each resource associated with meta-data and content, each meta-data including one or more fields that are updated whenever the content of the associated resource is changed and a fence value, each fence value indicating whether its associated resource should be used to update a resource on another machine at a higher precedence than from other meta-data;

~~if the fence value of the second resource indicates that the second resource should not be propagated from the second machine, preventing propagation from the second machine based on the fence value of the second resource indicating that the second resource should not be propagated;~~ and

~~if the fence value of the first resource is of a higher precedence than the fence value of the second resource, updating the second resource from the first resource based on the~~

-- DRAFT - NOT FOR OFFICIAL ENTRY --

Application No. 10/733,459

fence value of the first resource having a higher precedence than the fence value of the second resource.

17. (Currently Amended) The computer storage media-readable-medium of claim 16, further comprising if the fence values of the first and second resources are equivalent, determining which machine will update the other based on meta-data other than the fence values.

18. (Currently Amended) The computer storage media-readable-medium of claim 17, wherein the other meta-data comprises a logical clock indicating the last time the corresponding content was updated.

19. (Currently Amended) The computer storage media-readable-medium of claim 18, wherein a fence value indicates that its corresponding resource may be propagated to other machines until another resource with a higher fence value is located on another machine.

20. (Currently Amended) The computer storage media-readable-medium of claim 16, wherein the meta-data associated with the first resource is stored in a separate data structure from its corresponding resource.

21. (Currently Amended) The computer storage media-readable-medium of claim 20, wherein the data structure is corrupted or deleted, further comprising rebuilding the data structure and decrementing the fence value associated with the first resource.

22. (Currently Amended) The computer storage media-readable-medium of claim 21, further comprising rebuilding the data structure a plurality of times and decrementing the fence value associated with the first resource each time the data structure is rebuilt.

23. (Currently Amended) The computer storage media-readable-medium of claim 22, further comprising if the fence value of the second resource is of a higher precedence than the fence value of the first resource, updating the first resource from the second resource.

-- DRAFT - NOT FOR OFFICIAL ENTRY --

Application No. 10/733,459

24-30. (Cancelled)

31. (Currently Amended) A system for replicating data, comprising:

a first machine having a first set of resources;

a second machine having a second set of resourcesresourcee, wherein each resource on each machine is associated with meta-data and content, each meta-data including one or more fields that are updated whenever the content of the associated resource is changed and a fence value, each fence value indicating whether its associated resource should be used to update a resource on another machine independently from other meta-data, wherein the first and second machines are configured to:

communicate information regarding the resources contained by both machines; and

update each resource that is out-of-date according to the following precedence:

determining whether a fence value of a resource on one of the machines is of higher precedence than the fence value of a corresponding resource on the other machine;

if a fence value of a resource on one of the machines is of higher precedence than the fence value of a corresponding resource on the other machine, updating the other machine with the resource on the one machine; otherwise

updating the resource on the machines based on data other than the fence values.

32. (Original) The system of claim 31, wherein the first set of resources is loaded from a backup and the fence values thereof are set to cause the first set of resources to have precedence over any other set of resources, such that any other set of resources on any other machine that corresponds to the set of resources are updated from the first set of resources.

-- DRAFT - NOT FOR OFFICIAL ENTRY --

Application No. 10/733,459

33. (Original) The system of claim 31, wherein the fence values of the first set of resources are marked to have precedence over corresponding resources on other machines, such that the corresponding resources are updated from the first set of resources.